In general, 50 percent light from the back-light unit of a TFT panel will be absorbed and turned into heat,” explains Chen, cofounder of Opto Express. “Our product will be able to convert that light that is supposedly being absorbed by the components in the TFT panel into penetrable light.” This technology, he says, will “enable either a portable device to run longer on the same battery or a LCD TV to use less energy under the same level of brightness.”

Chen attributes his ability to fine-tune a business idea that is smart, innovative, and market ready to his engineering background coupled with his experience as a former investment banker. “Being an engineer and an investment banker helps me to understand the rise and fall of companies,” says Chen, who splits his time between Nanjing, China, and Taipei, Taiwan. “As soon as I saw that the right engineering, right market, and right management were on the table, I assembled them together with the right capital.”

Chen came to the United States from Taiwan in 1985 to attend Columbia Engineering. His older brother, who was already studying at Baruch College, urged him to move to New York City, too. Chen had $6,000 to his name and naively thought that would be enough for graduate school. Still, this didn’t stop him. “I realized I couldn’t afford Columbia, but I still wanted to attend. I got admission, after all,” he says. He set up a meeting with the School’s treasurer who ended up helping Chen find a job in Public Safety. Chen parked cars full time and also worked as a security officer, benefiting from the University’s employee tuition exemption plan. “I don’t remember his name but he must’ve been my guardian angel.”

Growing up in Taiwan, Chen says “engineering became every boy’s dream.” He remembers being inspired by all of the infrastructure expansion happening in Taiwan in the early 1980s. After graduating from Columbia Engineering with an MS in operations research, Chen worked at Andersen Consulting. He moved back to Asia in 1995 to work for PaineWebber. He left investment banking altogether in 2007 after connecting with a former high school classmate whose expertise was in the TFT-LCD industry. Now they are business partners.

Thinking back to how SEAS prepared him for running his own business, Chen says the Engineering School definitely sent him on the right path. “To be an entrepreneur, you need not just luck and encouragement, but you also need good analytical skills and the enthusiasm for innovation,” says Chen. “The Engineering School taught me well in these areas and helped build my passion to innovate.”

Luke Chen sees the light at the end of the tunnel. Opto Express Inc., the start-up Chen’s been furiously working on since 2009, is gearing up to launch its first product in March. The product, which Chen claims will rival what is offered by technology conglomerate 3M, has the capabilities to increase the brightness of any TFT-LCD (Thin Film Transistor Liquid Crystal Display) panel by at least 40 percent.

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